

CLAIMS:

1. A solar tracking apparatus which is movable from a morning position to an evening position, and which has an eastern edge which faces generally in an easterly direction and a western edge which faces generally in a western direction the apparatus comprising a support means to which a solar device can be supported, a cylinder, the cylinder including a ram which is extendable from and retractable into the cylinder, an expansion chamber which forms part of or which is in fluid connection with the cylinder and which is positioned under the western edge of the apparatus, a liquid in the cylinder and the expansion chamber, the liquid having a boiling point which is greater than the maximum operating temperature of the cylinder and the expansion chamber, a return means to cause the apparatus to be returned to the morning position, and rotation means associated with the ram to rotate the apparatus and the expansion chamber from the morning position to the evening position upon extension of the ram.
2. The apparatus of claim 1, wherein the support means comprises a supporting frame.
3. The apparatus of claim 2, wherein the solar device comprise photovoltaic cells.
4. The apparatus of claim 1, wherein the expansion chamber comprises a hollow tube which is separate to the cylinder and attached thereto.
5. The apparatus of claim 1, wherein the liquid is selected from the group consisting of a mineral oil, a plant oil, and an alcohol with the proviso that the boiling point of the liquid is higher than the maximum operating temperature of the apparatus.
6. The apparatus as claimed in claim 1, wherein the return means is a spring.
7. The apparatus of claim 1, wherein the rotation means is a mechanical crank assembly.
8. The assembly of claim 7, wherein the mechanical crank assembly comprises a pivot tube, the pivot tube convertible about a substantially horizontal axis, an L shaped lever arm attached to the pivot tube,



attachment means of the ram to attach the ram to the lever arm such that extension and retraction of the ram will cause rotation of the pivot tube, the pivot tube being attached to the support means to rotate the support means upon rotation of the pivot tube.

- 5 9. The assembly of claim 8, comprising a vertical support post, the perfect tube being pivotly supported by the support post .